Pathways to Green: Moving toward Environmentally Sound Building Practice in the Terrain of Human Motivation and Everyday Experience

by Stella Tarnay

Why build green? That is a question that befuddles many of us in the green building movement because its answer seems self-evident. After all, isn't it "obvious?" Greenhouse gasses, global warming, polluted air, shrinking resources, dying ecosystems, undrinkable water, endangered communities and environmental injustice around the planet. There's so MUCH to be done to inhabit the world in a more responsible way. But of course, human motivation has its own reasoning, usually arising from personal experience, emotion, and evidence culled from daily life. So, although farmland has been disappearing for years, it is the insufferable daily commute that has convinced many to help fight sprawl and support smart growth initiatives. Or, think back to the oil crisis of the 70's. Grassroots environmentalism was already blossoming, but it was the long lines at the gas pumps that convinced America's citizens (ever so briefly) to buy fuel-efficient cars. For most of us, most of the time, it is direct experience and evidence that moves us toward change.

Addressing the question of "why green building"--with all those reasons "out there" to build green, which are the ones that motivate people toward better practice? Which are the pathways to change? In my experience with outreach and education in the residential industry, I have found that there are three compelling (if you'll overlook the mixed metaphor) pathways to "green." They are pathways that we should pay attention to as we set course for greening Boston.

Energy Savings. Perhaps it was those long lines in the 70s, or our fathers/mothers/ grandmothers (who remember the Depression) telling us to turn off all those lights, but energy conservation is the most accessible aspect of green building. We are comfortable talking about energy (compared to, say, species preservation or compost toilets). Energy conservation is achievable, it is measurable, and it makes a difference. Buildings consume one third of the nation's "primary" energy, and account for two thirds of its electricity consumption. By using less energy in a building, we know we are making significant impact. Lower energy use means fewer power plants, less air pollution, and decreased reliance on foreign oil. Today, the technology exists to save anywhere from 20% to 80% on energy use for fairly conventional buildings. And those energy savings are linked directly to the purse. Saving energy means saving dollars for that special home improvement project, a vacation, business inventory, classroom programs, City initiatives, and state coffers. AND, it makes grandmother happy.

Operating Expenses. While citizens and building professionals alike can appreciate the implications of energy savings, building operators and managers are particularly sensitive to the operating expenses of buildings. Green building strategies reduce the annual and lifetime expense for operations. At Erie-Ellington Homes, Codman Square Neighborhood Development Corporation's annual operating expenses were reduced by 40% annually through a combination of heat energy savings, electricity savings, and water conservation. Over the long term, resource-wise building decisions mean fewer window replacements, better carpets and floors, more durable building components, and lower disposal costs. Consider the implications of the opposite

approach. Early Habitat for Humanity Homes, built by volunteers with love (fast and cheap), proved to be unaffordable for many of the families that moved into them, because they were financially impossible to maintain and heat. Homeowners, business operators, city managers, school district administrators, hospital administrators, facilities managers and CFOs in all sectors can appreciate the operating savings (not to mention lowered hassle factor) of well-designed, well-built high-performance "green" buildings.

Human Health. Human health may be the most compelling of all pathways to green building. When children get asthma, when workers don't show because molds and toxic off-gassing has made them sick, the implications of poor building decisions are patently evident. Green design and construction methods improve ventilation, reduce the release of carcinogens, carbon monoxide, and volatile organic compounds, and prevent the growth of mildews and molds in indoor environments (while they reduce impact on the external environment during the manufacturing phase). The potential for health concerns to move the market is aptly demonstrated by the growing popularity of Whole Foods and similar food stores. Shoppers pay to protect their health by buying pesticide- and chemical-free products, and by doing so support sustainable agriculture.

The emotional charge of health concerns related to building practice should not be underestimated. Board members of Community Development Corporations and citizens speak with justifiable anger about the high incidence of asthma in their neighborhoods. Enraged parents protest outside school buildings because of the effects of mold and mildew problems on their children. The Massachusetts DMV closes down entire departments because of sick building syndrome. On the positive side, human health is also the story that stays with people who benefit from good building decisions. Residents at pioneering green affordable housing projects (in Boston, Atlanta, and Portland OR) talk about how comfortable their new homes are, how they appreciate low utility bills, AND how their children don't get sick as often (this piece of the story is usually repeated several times during a conversation). Interviews at the Solaire, the nation's first "green" residential highrise in New York City, revealed that human health was a key draw for potential tenants to this high-end, high-quality environmentally sensitive building. Even Russell Albanese, the developer of the project who spearheaded its green building efforts said recently: "I was stunned at the level of interest that the indoor air quality features drew from tenants. And they continue to comment how they feel the difference."

These pathways to (perhaps they can also be called leverage points or motivators for) green building exist in a larger context of multiple motivations and incentives. Conscience is one of them. Even while the number of SUVs on the road continues to grow, there is also growing consciousness and concern about the quality of the built environment and its global impact. Many of us Americans KNOW that our building and transportation patterns are wasteful. We KNOW the evidence for global climate change is mounting, and we KNOW that we should try and do things in a better, more conscientious way. So how to proceed? I suggest that immediate, direct, accessible pathways to green building help the greatest number of people make practical decisions in the context of conscience. It may be hard to talk about combating El Nino or patching up the ozone, but it is possible to talk about and engage policy-makers, building professional and citizens alike in conversation about buildings which are resource-wise and affordable to manage, and which are healthy for humans to inhabit.

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